ABSTRACT

Berau Bara Energi Company administratively located in the village of Tasuk, District Gunung Tabur, Berau regency, East Kalimantan province. BBE company is engaged in coal mining and has extensive mining business license (IUP) 5,000Ha. Mining system that is applied to the BBE company is open pit mining and the method is strip mining.

The area is a place of research is in the pit highwall A. Blasting in final wall pit area is using controlled blasting, and the method is presplit blasting. From the observations in the field showed that there is damage on the final wall pit. Therefore it is necessary to make an analysis of the geometry that has been implemented by the company, in order to know that geometry is applied blasting has fulfilled the theoretical aspects. If the load of exploseves overfilled in the hole at the end of the production row, it can cause excessive damage (blast damage). To find out the results of blasting blast damage can use the formula of the particle velocity by Holmberg and Persson. Particle velocity assessed damage, if the speed limit of particles that propagate to the final wall pit is up to 635 mm/s and acceptable damage if the velocity is 400 mm/s (savely, 1986).

From observations showed that are bacbreaks on the wall face. To find out the results of blast damage can use the formula of particle velocity by Holmberg and Persson. The results of the calculations showed that the velocity of particles that propagate in the rock is 635 mm/s. This is indicated that blasting geometry cause blast damage on the wall face.

Presplit method and the addition of row buffer in front of the hole presplit can reduce the speed of the particles that propagate to the final wall pit. From the calculation shows that velocity of particles that propagate to the final wall pit is 400 mm/s.